EDG Valids Processing (EVP) Activities

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EDG Valids Processing (EVP) Interface: Overview

- **The EVP interface is a web-based ingest/processing and test tool for EDG valids, and valid related files.**
- **Valid and valid related information can be submitted independent of one another.**
- **EVP handles updates to dependent valids, definitions, package information, and extended criteria.**

EDG Valids Processing (EVP) Interface: Overview

- **Handles all modes of valid processing and testing, consisting of public modes (ops and pre-ops), hidden modes (ops and pre-ops), and test modes (ECS-TS1, ECS-TS2, ECS-OPS, VATC-TS1, VATC-TS2, VATC-TS3, and VATC-OPS).**

- **EVP handles complete replacement of valids, deletions, and additions.**

EDG Valids Processing (EVP) Interface: Overview

- **EVP can also be used for preliminary testing of valids against your server before a need to promote.**
- **EVP will check any valid or valid related files for syntax, semantic, and content.**

EDG Valids Processing (EVP) Interface: General Guidelines

- **EVP can only handle one deletion action, or one addition action per processing cycle.**

- **EVP requires a username and password to gain access. Contact the EDG science and operations group with any access issues at evp@killians.gsfc.nasa.gov.**

EDG Valids Processing (EVP) Interface: General Guidelines

- **There is only one username and password assigned to each data center/server. If more than one person will be accessing EVP from a particular data center/server, please coordinate among staff.**

- **The address of the operational EDG Valid Processing (EVP) interface is:**

  http://pilsner.gsfc.nasa.gov/evp-doc/index.html.

EDG Valids Processing (EVP) Interface: General Guidelines

- **Processing of valids is now done on a twice weekly basis, rather than a 2-week cycle. With this schedule, valids received between Thursday and COB Monday will be processed and released by the following Wednesday. Valids received between Tuesday and Wednesday COB, will be processed and released by the following Friday.**

EDG Valids Processing (EVP) Interface: Guidelines

- **Replacement can happen repeatedly, so long as each successive replacement incorporates previous modifications.**

- **Updates to a data center's dependent valids in RCS occur after final ingest processing for a particular cycle. At that time, updated files are then accessible for further submission actions (deletion, addition, and replacement).**

EDG Valids Processing (EVP) Interface: Guidelines

- **The EDG client invoked by EVP is a test instance of the client, visible only to the data submitter, after valids and valid related information has passed syntax, semantic, and content by EVP.**

- **Files to be uploaded, either from UNIX platforms, or pc's should be text formatted files only, in ODL. Microsoft word format, or other non text formats will not work.**

EDG Valids Processing (EVP) Interface: Guidelines

- **The use of EVP to upload and test your valids does not make valids directly visible in the various EDG clients (hidden, public, test). You must choose 'Request for Promotion' within the EVP interface.**

- **Conversely, if you desire to only test your valids, but do not wish to have them processed operationally by the EDG Science and Operations group at that time, you should not choose 'Request for Promotion‘ within the EVP interface.**

EDG Valids Processing (EVP) Interface: Guidelines

- **When the 'Request for Promotion" is made, you will be presented with a template, prepopulated with information about your valids. Additional explanation of any additions, deletions, or changes made to any valid and valid related files since your last submission should be added below the prepopulated information.**

- **EVP can be used to test valid submission against either preoperational or operational server. If you do submit a request for promotion of valids for either preoperational or operational mode, and you are an operational data center, the submission will be treated as an operational submission.**

EDG Valids Processing (EVP) Interface: Guidelines

- **Complete replacement of dependent valids, in ODL, are to be submitted in their entirety.**

- **Dependent Valid additions should be submitted in complete odl groups for each data product.**

- **Dependent valid deletions should be submitted as a txt file with one dataset on each line, and each dataset name enclosed in parenthesis, and prefixed with DATASET_ID =**

EDG Valids Processing (EVP) Interface: Guidelines

- **Packaging information, in ODL, is to be submitted in its entirety as a text file, regardless of the type of change made since last submission.**

- **Definition files, in ODL, are submitted separately as a text file. Only new or modified definitions are submitted for processing.**

- **Extended Attributes (Extended Valids) information, in ODL, are submitted separately as a text file. Only new or modified extended search attributes are submitted for processing.**

Additional Information

The following slides are not part of the 2002 EDG Workshop presentations. These are include as a reference to past topics on valids and valid related information submission guidelines.

EDG Valids Standards: Valid ODL Format - Replacement

```
GROUP = VALIDS
  DATA_CENTER_ID = “EDC-ECS”
    GROUP = DATASET
      DATASET_ID = "LANDSAT-7 LEVEL-0R WRS-SCENE V002"
      CAMPAIGN = “<unspecified>"
      SOURCE = "LANDSAT-7"
      SENSOR = "LANDSAT ETM+"
      PARAMETER = ("INFRARED IMAGERY", "LAND COVER", "VISIBLE IMAGERY")
      PROCESSING_LEVEL = "0”
      MD_ENTRY_ID = "L70RWRS2”
      EXTENDED_CRITERIA_AVAIL =
        ("QA_LL_QUAD_CCA","QA_LR_QUAD_CCA","QA_UL_QUAD_CCA","QA_UR_QUAD_CCA",
        "QA_SCENE_CCA","BAND1_GAIN","BAND2_GAIN","BAND3_GAIN","BAND4_GAIN",
        "BAND5_GAIN","BAND7_GAIN","BAND8_GAIN","QA_SCENE_QUALITY",
        "SUN_AZIMUTH_ANGLE","SUN_ELEVATION_ANGLE")
    END_GROUP = DATASET
    GROUP = DATASET
    .
    .
    END_GROUP = DATASET.
  END_GROUP = VALIDS
END
```

EDG Valids Standards: Valid ODL Format - Addition

```
GROUP = VALIDS
  DATA_CENTER_ID = “EDC-ECS”
    GROUP = DATASET
      DATASET_ID = "LANDSAT-7 LEVEL-0R WRS-SCENE V002"
      CAMPAIGN = “<unspecified>"
      SOURCE = "LANDSAT-7"
      SENSOR = "LANDSAT ETM+"
      PARAMETER = ("INFRARED IMAGERY", "LAND COVER", "VISIBLE IMAGERY")
      PROCESSING_LEVEL = "0”
      MD_ENTRY_ID = "L70RWRS2”
      EXTENDED_CRITERIA_AVAIL =
        ("QA_LL_QUAD_CCA","QA_LR_QUAD_CCA","QA_UL_QUAD_CCA","QA_UR_QUAD_CCA",
        "QA_SCENE_CCA","BAND1_GAIN","BAND2_GAIN","BAND3_GAIN","BAND4_GAIN",
        "BAND5_GAIN","BAND7_GAIN","BAND8_GAIN","QA_SCENE_QUALITY",
        "SUN_AZIMUTH_ANGLE","SUN_ELEVATION_ANGLE")
    END_GROUP = DATASET
    GROUP = DATASET
    .
    .
    END_GROUP = DATASET.
  END_GROUP = VALIDS
END
```

EDG Valids Standards: Valid ODL Format - Deletion

DATASET_ID = “NCEP - PREPQC QUALITY CONTROLLED OBSERVATION DATA V001”

DATASET_ID = "MODIS/Terra Raw Radiances in Counts 5-Min L1A Swath V001"

DATASET_ID = “MODIS, 36 km map, QC'd Daily Composite, Ocean Color and SST Standard Dev V001”

DATASET_ID = "MODIS/TERRA OCEAN WEEKLY PRODUCTIVITY INDICES 8-DAY L4 GLOBAL 4KM ISEAG V001"

EDG Valids Standards: Valid ODL Guidelines

- **Required fields and character limits**
  - **Dataset_id (85 chars)**
  - **Parameter (80 chars)**
  - **Sensor (30 chars)**
  - **Source (30 chars)**
  - **Processing_level (2 chars)**
  - **MD_ENTRY_ID (31 chars)**

EDG Valids Standards: Valid ODL Guidelines

- **Optional fields and character limits**
  - **Campaign (80 chars)**
  - **Specialized_criteria_avail (None)**

EDG Valids Standards: Package ODL Format

```
GROUP = PACKAGE
  DATA_CENTER_ID = "ORNL"
  DATASET_ID = "15 MINUTE STREAM FLOW DATA: USGS (FIFE)"
  PACKAGE_ID = "*"
  COMMENT = ("USGS 15 MINUTE STREAM FLOW DATA FOR KINGS CREEK ON THE
          KONZA PRAIRIE")
  NUMBER_OF_GRANULES = 39
  NUMBER_OF_OPTIONS = 1
  GROUP = PROCESSING_OPTION
    OPTION_ID = "MACHINE_READABLE"
    PACKAGE_SIZE = "VARIABLE"
    NUMBER_OF_MEDIA_TYPE = 2
    GROUP = MEDIA_TYPE
    TYPE_ID = "FTP"
    NUMBER_OF_MEDIA_FORMAT = 4
      GROUP = MEDIA_FORMAT
        FORMAT_ID = "TAR COMPRESSED"
        APPROX_COST = 0.0
      END_GROUP = MEDIA_FORMAT
      GROUP = MEDIA_FORMAT
        FORMAT_ID = "TAR GZIPPED"
        APPROX_COST = 0.0
```

EDG Valids Standards: Package ODL Format

```
 END_GROUP = MEDIA_FORMAT
     GROUP = MEDIA_FORMAT
       FORMAT_ID = "PC WINZIPPED"
       APPROX_COST = 0.0
     END_GROUP = MEDIA_FORMAT
     GROUP = MEDIA_FORMAT
       FORMAT_ID = "MAC STUFFIT"
       APPROX_COST = 0.0
     END_GROUP = MEDIA_FORMAT
   END_GROUP = MEDIA_TYPE
GROUP = MEDIA_TYPE
TYPE_ID = "CD-ROM"
   NUMBER_OF_MEDIA_FORMAT = 1
     GROUP = MEDIA_FORMAT
       FORMAT_ID = "CD-R"
       APPROX_COST = 0.0
     END_GROUP = MEDIA_FORMAT
   END_GROUP = MEDIA_TYPE
 END_GROUP = PROCESSING_OPTION
END_GROUP = PACKAGE

GROUP = PACKAGE
.
END_GROUP = PACKAGE
END
```

EDG Valids Standards: Definition ODL format

DATA_CENTER_ID = “GHRC”
GROUP = KEYWORD_ENTRY
ATTRIBUTE = "SENSOR"
KEYWORD = "AMPR"
DEFINITION = "The Advanced Microwave Precipitation Radiometer is a passive microwave radiometer system on an airborne platform that collects data at 10.7 GHz, 19.35 GHz, 37.1 GHz, and 85.5 GHz."
END_GROUP = KEYWORD_ENTRY

GROUP = KEYWORD_ENTRY
ATTRIBUTE = "PARAMETER"
KEYWORD = "BRIGHTNESS TEMPERATURE"
DEFINITION = "Effective temperature of a blackbody radiating the same amount of energy per unit area at the same wavelengths as the observed body -also called effective temperature (Kelvin)."
END_GROUP = KEYWORD_ENTRY
END

EDG Valids Standards: Definition ODL Guidelines

- **Syntax includes ATTRIBUTE, KEYWORD, and DEFINITION fields.**
- **Definitions should be clear and concise; maximum length should be from 500 to 1000 characters; most definitions will be much shorter.**
- **Include units in parameter definition when appropriate.**
- **Acronyms may be used in definitions, but they must be defined on first usage; acronyms, such as NASA and NOAA may be used in the definition. See the Acronym Page.**
- **Only new or changed definitions should be submitted.**

EDG Valids Standards: Valid ODL Format with Extended Criteria

```
GROUP = VALIDS
  DATA_CENTER_ID = “EDC-ECS”
    GROUP = DATASET
      DATASET_ID = "LANDSAT-7 LEVEL-0R WRS-SCENE V002"
      CAMPAIGN = “<unspecified>"
      SOURCE = "LANDSAT-7"
      SENSOR = "LANDSAT ETM+"
      PARAMETER = ("INFRARED IMAGERY", "LAND COVER", "VISIBLE IMAGERY")
      PROCESSING_LEVEL = "0”
      MD_ENTRY_ID = "L70RWRS2”
      EXTENDED_CRITERIA_AVAIL =
        ("QA_LL_QUAD_CCA","QA_LR_QUAD_CCA","QA_UL_QUAD_CCA","QA_UR_QUAD_CCA",
        "QA_SCENE_CCA","BAND1_GAIN","BAND2_GAIN","BAND3_GAIN","BAND4_GAIN",
        "BAND5_GAIN","BAND7_GAIN","BAND8_GAIN","QA_SCENE_QUALITY",
        "SUN_AZIMUTH_ANGLE","SUN_ELEVATION_ANGLE")
    END_GROUP = DATASET
    GROUP = DATASET
    .
    .
    END_GROUP = DATASET.
  END_GROUP = VALIDS
END
```

EDG Valids Standards: Extended Search Criteria ODL Format

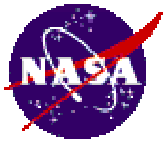
```
GROUP = SPECIALIZED_CRITERIA
    CATEGORY_NAME = "Cloud Amount"
    VARIANT = "QA_LL_QUAD_CCA"
    CRITERIA_NAME = "QA_LL_QUAD_CCA"
    CRITERIA_TYPE = "INTEGER"
    RANGE = Y
    CRITERIA_MIN = 0
    CRITERIA_MAX = 100
    DEFAULT = "Y"
    RESULTS_SELECTABLE = "Y"
    COMMENT = ("Cloud cover assessment [percent area] for the lower left quadrant of this WRS scene.")
END_GROUP = SPECIALIZED_CRITERIA

GROUP = SPECIALIZED_CRITERIA
  .
  .
  .
END_GROUP = SPECIALIZED_CRITERIA
```

EDG Valids Standards: Purpose of Extended Criteria

- **In the EDG, search fields that are common across all (or most) datasets are supported as core search attributes. Many data centers may also want to provide searching on additional attributes, which may be common across several datasets, or specific to one.**

- **The implementation will provide for extended search criteria as defined by individual data centers, and will allow data centers to coordinate in designing specialized search criteria that apply to some subset of the EDG datasets.**

- **Because this implementation calls for the EDG client to construct a custom search screen for each extended search criterion, we rely on the information provided in the SPECIALIZED_CRITERIA group**



EDG Valids Standards: Extended Search Criteria Assumptions

- **Extended Search Criteria will be dependent with the valids. That is, when a user has selected standard search criteria, only the extended search criteria applicable to those datasets making use of such extended criteria will be available. Likewise, when a user selects extended search criteria, only those datasets that support the selected extended search criteria will be available. If there are conflicts within the user's final search criteria, the client will notify the user of the compatibilities before the search is sent.**

- **Path/Row will be treated as a geographic specification, not an extended search. Search by Granule ID will be implemented as a separate search type. Thus, all extended search criteria will be compatible with geographic search criteria.**

- **Unique search criteria (i.e., not variants) will be the only members of their categories.**

- **Extended search definitions are submitted by the DAACs as a text file using ODL objects for each SPECIALIZED_CRITERIA group corresponding to each extended search criteria.**

EDG Valids Standards: Extended Criteria Types

CRITERIA_TYPE = "DATE”

CRITERIA_TYPE = ”REAL” , though recognized, ”FLOAT” is not correct

CRITERIA_TYPE = "GEO”

CRITERIA_TYPE = "INTEGER”, though recognized, “INT” is not correct.

CRITERIA_TYPE = "STRING”

CRITERIA_TYPE = “FIXED”

CRITERIA_TYPE = “FLOATINGSCENE”

EDG Valids Standards: Extended Criteria Structure

```
GROUP = SPECIALIZED_CRITERIA
    CRITERIA_NAME =                 -- string *
    CRITERIA_TYPE =                 -- string *
    CATEGORY_NAME =                 -- string *
    COMMENT =                       -- sequence string *
    DEFAULT =                       -- symbol
    MAX_LEN =                       -- integer
    RANGE = Y/N                     -- symbol
    CRITERIA_MIN =                  -- integer/real/date
    CRITERIA_MAX =                  -- integer/real/date
    CRITERIA_VALUE =                -- sequence
    SELECT_NUM = ONE | MANY         -- symbol
    REQUIRED = Y/N                  -- symbol
    RESULTS_SELECTABLE = Y/N        -- symbol
  END_GROUP = SPECIALIZED_CRITERIA
```

*** These are common across all specialized_criteria odl groups and required**

EDG Valids Standards: Extended Criteria DATE Type

GROUP = SPECIALIZED_CRITERIA

CATEGORY_NAME = "EquatorCrossingDate"

VARIANT = "EquatorCrossingDate"

CRITERIA_NAME = "EquatorCrossingDate”

CRITERIA_TYPE = "DATE”

RANGE = N

RESULTS_SELECTABLE = "Y"

COMMENT = ("This attribute represents the date of the descending equator", " crossing.")

END_GROUP = SPECIALIZED_CRITERIA

EDG Valids Standards: Extended Criteria FLOAT Type

GROUP = SPECIALIZED_CRITERIA
CATEGORY_NAME = "PointLatitude"
VARIANT = "PointLatitude"
CRITERIA_NAME = "PointLatitude"
CRITERIA_TYPE = “REAL"
RANGE = Y
CRITERIA_MIN = “-90.0”
CRITERIA_MAX = 90.0
DEFAULT = none
RESULTS_SELECTABLE = "Y"
COMMENT = ("A single geodetic latitudinal value.")
END_GROUP = SPECIALIZED_CRITERIA

EDG Valids Standards: Extended Criteria GEO Type

```
GROUP = SPECIALIZED_CRITERIA
        CATEGORY_NAME = “Spatial"
        VARIANT = "BoundingRectangle"
        CRITERIA_NAME = "BoundingRectangle"
        CRITERIA_TYPE = "GEO"
        CRITERIA_VALUE = ("BY_RANGE_LOC")
        RESULTS_SELECTABLE = "Y“
        COMMENT = ("The area coverage for ECS granules.")
END_GROUP = SPECIALIZED_CRITERIA
```

EDG Valids Standards: Extended Criteria STRING Type

```
GROUP = SPECIALIZED_CRITERIA
        CATEGORY_NAME = "Quality"
        VARIANT = "OperationalQualityFlag"
        CRITERIA_NAME = "Operational Quality Flag"
        CRITERIA_TYPE = "STRING"
        CRITERIA_VALUE = ("Passed", "Failed", "Being Investigated",
        "Not Investigated", "Inferred Passed", "Inferred Failed“, “Suspect”)
        SELECT_NUM = ONE
        DEFAULT = "Y"
        RESULTS_SELECTABLE = "Y"
        COMMENT = (
          "The granule level flag applying both generally to a granule ",
          "and specifically to parameters at the granule level. When ",
          "applied to parameter, the flag refers to the quality of that ",
          "parameter for the granule (as applicable). The parameters ",
          "determining whether the flag is set are defined by the developers",
         "and documented in the QualityFlagExplanation.")
END_GROUP = SPECIALIZED_CRITERIA
```

EDG Valids Standards: Extended Criteria INTEGER Type

```
GROUP = SPECIALIZED_CRITERIA
      CATEGORY_NAME = "Cloud Amount"
      VARIANT = "QA_LL_QUAD_CCA"
      CRITERIA_NAME = "QA_LL_QUAD_CCA"
      CRITERIA_TYPE = "INTEGER"
      RANGE = Y
      CRITERIA_MIN = 0
      CRITERIA_MAX = 100
      DEFAULT = "Y"
      RESULTS_SELECTABLE = "Y"
      COMMENT = (
        "Cloud cover assessment [percent area] for",
        "the lower left quadrant of this WRS scene.")
 END_GROUP = SPECIALIZED_CRITERIA
```

EDG Valids Standards: Archive.odl

```
GROUP      = DATA_CENTER
   DATA_CENTER_ID     = "EDC"
   DATA_CENTER_NAME    = "EROS Data Center"
   INTERNET          = "edcims.cr.usgs.gov"
   PORT              = "5720"
   GUIDE_SRV_ADDR     = "wais://eosims.cr.usgs.gov:5723/lpdaac-guide"
 END_GROUP   = DATA_CENTER

 GROUP = DATA_CENTER
   DATA_CENTER_ID     = "EDC-ECS"
   DATA_CENTER_NAME    = "ECS-EROS Data Center"
   INTERNET          = "e0ins02u.ecs.nasa.gov"
   PORT              = "15000"
   GUIDE_SRV_ADDR     = "wais://eosims.cr.usgs.gov:5723/lpdaac-guide"
 END_GROUP = DATA_CENTER
END
```

EDG Valids Standards: Request for Promotion

- **Alerts us that valids have been submitted for processing.**
- **Gives us a record of submission in the event of system or disk failures.**
- **Indicates the changes from last submission and assists us in verifying that processing is done correctly.**
- **Gives us a record of input file name along with system generated file name for proper mode of processing.**

EDG Valids Standards: Summary

- **Valids are submitted via the EDG Valids Processing (EVP) interface. Valids are no longer submitted via ftp.**
- **Data valid submitter responsible for insuring proper ODL syntax, semantics, and content.**
- **Final EDG Valids Processing by EDG Science and Operations group remains the same.**